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March 24, 1986

TO: Technical Memo to File

From: James S. Leatherwood, Reclamation Soils Specialist 

RE: Reclamation Plan Review, Carr Fork, Anaconda, ACT/045/004,
~~Folder #2, #14, Tooele County, Utah~~

On March 21, 1986 JBR consultants Joe Jarvis and Brian Buck (Anaconda Representatives) met with James Leatherwood of the Division. The submitted Carr Fork reclamation plan was found incomplete. Soil issues discussed during this meeting included:

- (A) High pH values of underlying borrow soils;
- (B) Fertilizer treatment;
- (C) Elevation of compacted underlying borrow soils;
- (D) Post-topography map; and,
- (E) Acid-Base potential of the smelter site soil materials.

Body

Rule M-3(2)(c)-JSL

Due to the low pH (4.69; 0-6") and high acid production potential of the smelter site soil materials the Division has recommended that limestone be mixed into the contaminated soils prior to substitute topsoil redistribution. JBR has not committed to this recommendation, nor has the Division determined the application of limestone to be essential for reclamation success.

Rule M-6 - JSL

Anaconda must submit an accurate post-topography map.

Rule M-10(14) - JSL

The Division has recommended a nitrogen fertilizer reduction on all soil treatments. The greatest nitrogen percentage is in the nitrate form; indicating that the nitrogen is primarily mineralized. JBR theorized that less nitrogen would be available to the vegetation with the incorporation of alfalfa (ie. higher N-mineralization). Based on a C:N ratio of 18:1 for alfalfa the

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Division recommends that no extra nitrogen would be required to stabilize the mineralized-N and available-N equilibrium. Anaconda must commit to fertilize all soil treatments. Anaconda must also commit to scarify all soils in borrow areas where the soil is compacted. The borrow material soil analysis indicates pH values greater than 9. A sodic soil is indicated by a pH greater than 8.4. The calcium, magnesium, sodium ratio and electrical conductivity data submitted indicates no sodium related problems. JBR indicated that a different procedural pH measurement was used for the borrow soil materials which may have resulted in the misleading information.

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